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I, JULIE BILLINGSLEY, TEAM LEADER EXAMINATION SUPPORT AND SALES hereby certify that annexed is a true copy of the Provisional specification in connection with Application No. 2003901428 for a patent by POINT BREAK TECHNOLOGY INC as filed on 24 March 2003.

I further certify that the name of the applicant has been amended to OBJECTIVE SYSTEMS PTY LTD pursuant to the provisions of Section 104 of the Patents Act 1990.



WITNESS my hand this  
First day of April 2004

*J. Billingsley*

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AUSTRALIA  
Patents Act 1990

PROVISIONAL SPECIFICATION

Applicant(s):

POINT BREAK TECHNOLOGY INC

Invention Title:

A SYSTEM AND METHOD FOR FORMATTING AND DISTRIBUTING  
READING MATERIAL

The invention is described in the following statement:

## A SYSTEM AND METHOD FOR FORMATTING AND DISTRIBUTING READING MATERIAL

### Technical Field

5        This invention relates to a system and method for formatting and distributing reading material.

### Background to the Invention

10        Commercial computer networks, such as the internet, have been used as a means of facilitating ordering of books and other reading material by consumers. This is typically achieved by presenting a web site based user interface to consumers to allow them to order reading material such as books. One example of this is the  
15        website Amazon.com. However, the reading material that can be purchased by users of these systems are the same as the offering made by a traditional book store. That is, each item of reading material is offered in only one format. Further, users must wait whilst the reading  
20        material they ordered is retrieved from a warehouse and shipped to them.

### Summary of the Invention

25        In a first aspect the present invention provides a system for distributing reading material including storage means for storing reading material in an electronic form; format selection means to allow a user to select a format in which the reading material is to be produced; production means for producing the reading material in the  
30        selected format; and delivery means for delivering the produced reading material to the user.

35        In a second aspect the present invention provides a method of distributing reading material including the steps of: storing reading material in an electronic form; allowing a user to select a format in which the reading material is to be produced; producing the reading material in the selected format; and delivering the produced

reading material to the user.

By use of the above system or method, a document can be provided to users in many different formats whilst storing only a single instance of the document in the system. A user can specify a format for the document that best suits their personal needs. They do not have to accept the format chosen by a publisher for a large print run of books.

10 In a third aspect the present invention provides a system for distributing reading material including storage means for storing reading material in an electronic form; obtaining means for obtaining order information from a user that at least identifies the reading material that they desire; print facility selection means for selecting a printing facility based on the order information; and delivery means for delivering the desired reading material in an electronic form to the selected printing facility for printing.

20 In a fourth aspect the present invention provides a method of distributing reading material including the steps of storing reading material in an electronic form; obtaining order information from a user that at least identifies the reading material that they desire; selecting a printing facility based on the order information; and delivering the desired reading material in an electronic form to the selected printing facility for printing.

30 By use of the system and method of the third and fourth aspects of the invention, a document order is printed at a cost effective location based on the requirements of the user. Further, the delay between the user ordering their reading material and it being made available to them is reduced.

35 In a fifth aspect the present invention provides a system for improving reading material including applying

means for applying a format to the reading material so that it is better comprehended or better remembered when presented to a person.

5 In a sixth aspect the present invention provides a method of improving reading material including the steps of applying a format to the reading material so that it is better comprehended or better remembered when presented to a person.

10 By use of the system and method of the fifth and sixth aspects of the invention, the comprehension or remembering of the reader is improved.

15 In a seventh aspect the present invention provides a computer software program arranged to instruct a computing system to conduct a method according to the second aspect of the invention.

20 In an eighth aspect the present invention provides a computer software program arranged to instruct a computing system to conduct a method according to the fourth aspect of the invention.

25 In a ninth aspect the present invention provides a computer software program arranged to instruct a computing system to conduct a method according to the sixth aspect of the invention.

#### **Brief Description of the Drawings**

30 An embodiment of the present invention will now be described, by way of example only, with reference to the accompanying drawings, in which:

Figure 1 is a schematic view of an embodiment of a system for distributing reading material according to the present invention; and

35 Figure 2 is an example of a document marked up to an XML schema and stored in the system of Figure 1;

Figure 3 is an example of an XML document used to

défine a format in the system of Figure 1;

Figure 4 is an example of an XSL style sheet used in the system of Figure 1;

Figure 5 is an example of an XSL:FO document used in the system of Figure 1;

Figure 6 is an example of a PDF encoded document output by the system of Figure 1;

Figure 7 is an example of a passage of text;

Figures 8 to 12 depict the text of Figure 7 with further alternative formats applied.

Figures 13 to 28 illustrate examples of text with formats applied.

#### Definitions

In this specification the following words have the following meanings:

Document - is intended to mean any reading material in hard copy or electronic form and includes books, pamphlets, brochures, reports, and other written materials.

Format - is used to describe the general physical appearance of written material, including such things as typeface, type size and margins.

#### Detailed Description of the Preferred Embodiment

Referring to Figure 1 a system 10 for distributing reading material is shown in schematic form. The system is represented schematically as a collection of software functions. The system is implemented as software running on a suitably configured computing system which is connected to the internet such as an internet server.

System 10 includes obtaining means in the form of Interactive web site 12 which is presented by system 10 to users and allows users to interact with the various components of the invention.

Load/Markup Process 14 allows users to upload and mark-up documents to conform with a pre-defined XML schema. The schema is constructed in such a manner as to facilitate automated publishing. An example of a document marked-up to such a schema is attached labelled Figure 2. Documents are marked up to this schema by users, validated by the system, and stored in repository 16.

System 10 includes storage means in the form of Repository 16 being a storage facility for the documents that have been uploaded. The documents are stored as XML documents.

When ordering a document for production, the user must specify what format they would like the document produced in. The system includes selection means presented by web site 12 which allows a user to choose from a range of existing formats (stored formats 22). Alternatively, they can prepare and select their own format using format builder 20. Formats are stored as simple XML documents where each format parameter (such as font type, font size etc) has an XML tag and attributes that allow the format generator to recreate a style sheet that will generate the formatted document. An example of an XML document used to define a format is attached labelled Figure 3.

Format builder 20 allows a user to construct a new format for reading materials to be produced in. It allows the user to specify their desired format parameters based on their own personal requirements. The user can specify at least the following format parameters:

- page size
- margins
- fonts (including special fonts and word shaping)
- leading
- effects
- colours

Format tester 18 is an optional module that helps a user select the best format for that person as an

individual. The format tester has rules that are based on knowledge of reading disabilities and formats that assist those reading disabilities.

5 Users may select an existing format and change it or  
create a new format. Users wishing to view the document  
as it might appear in that format will process the book as  
if they were buying it, and then view the book before  
agreeing to purchase the book. This allows users to  
preview a format for reading materials which they plan to  
10 obtain from system 10 before committing to purchase the  
reading material produced.

Selection purchase process 24 allows a user to select  
a document they wish to be produced from repository 16.

After the user has selected their required format,  
15 and the document they wish to be produced, the document is  
produced in the selected format by a production means made  
up of Style Sheet Builder 25, XSLT Processor 29 and XSL:FO  
processor 32. Style Sheet Builder 25 uses the XML file  
defining the format selected by the user to create an  
20 XSL:FO style sheet 27. This style sheet is then applied  
by the XSLT Processor 29 to the XML document from  
repository 16 which corresponds to the document required  
by the user to produce an XSL:FO file 31. The XSLT  
processor may be a commercial processor or may require  
25 subsequent processing by one or more additional processes  
to add more complex formats. When in final form, the  
XSL:FO file is then processed by the XSL:FO processor 32  
to produce the document in a form ready for printing, in  
this case in a PDF encoded document.

30 An example of such a style sheet is attached labelled  
Figure 4. XSL style sheet 40 is then applied to the XML  
document information to yield an XSL:FO document 42. An  
example of such a document is attached labelled Figure 5.  
The style sheet is no longer needed and is deleted.  
35 Finally, XSL:FO document 42 is used to produce a PDF  
encoded document 44. An example of such a PDF encoded  
document is attached labelled Figure 6.



System 10 includes delivery means in the form of print and delivery optimisation system 30 which arranges delivery of the produced document to the user based on order information provided by the user. The order  
5 information is a combination of known facts about the user which are associated with their user ID such as their default delivery address and preferred payment method, in combination with any special requirements they have included in the particular order they are making. The  
10 order information also includes details of the selection of desired document and format that the user made above.

Delivery and Optimisation system 30 may deliver the produced PDF encoded document to a user by sending it to their email address.

15 The delivery system may have file compression built in. The optimisation system allows a document to be sent in electronic form to a printery at a location close to the reader which prints, binds and dispatches a hard copy document to the user. The printery can be selected for  
20 proximity, for lowest printing cost, for lowest printing and delivery cost, or for speed of delivery depending upon the requirements of the user.

The production cost of the produced document is determined in part by the format previously selected by  
25 the user. For instance, users with good eyesight can have large books printed out in a small font and thereby require less paper. This lowers the production cost. Users requiring a large font will need more pages printed so the produced document will cost more.

30 The printing cost is determined in part by the location of the printery. For instance, printing at a location near to the user will minimise the transport costs in transporting the printed document to the user's delivery address.

35 The printing cost is determined in part by the country in which printing is carried out. For instance, printing in Mexico is much cheaper than the United States.

Financial systems 26 collect any payments required from users as a result of their use of the system.

#### Reader Defined Variable Format Patterns

- 5       The system allows a reader to define variable patterns within the format of a book or other document, and apply these format rules automatically to the whole document. Creating a book where every page is visually different is an aid to visual memory. The variable format
- 10 patterns of the book include:
- Random patterns - for example, every page is formatted with different margins or paragraph margins which are determined by random numbers
  - Content based patterns - for example, every mathematical
  - 15 formula is printed in a particular way.
  - Regular patterns - for example every page has a different watermark on it.
  - A combination of the above
- 20 The variable format patterns include variations in the following parameters:
- Variable paragraph shapes
  - Variable paragraph line spacing within and between
  - 25 paragraphs
  - underlining with variable thickness and coloured lines
  - creation of patterns of words in paragraphs to make a paragraph visually memorable, using fonts, colours, type sizes. (one pattern in one paragraph and another in another paragraph)
  - 30 • creation of patterns within paragraphs using the same technique (i.e. one paragraph is in one format, the next paragraph is in another format etc)
  - different watermarks
  - varying page margin sizes
  - 35 • placement of distinctive and possibly unrelated illustrations on a page

Using the system, a user could therefore obtain a textbook in two volumes - one for the text and the other for the diagrams, tables, footnotes, indices etc. Or the user could define large margins so that they could write notes in these margins. Or a user could apply random page formats.

These formats can be applied to produce documents intended for electronic use or printing in hard copy documents and is not limited to the production of books.

### Special Formats

Some people have trouble comprehending reading material. This can be for a number of reasons including problems with vision, eye control, discrimination of individual images, recognition and conceptualisation of images into meaningful words, and processing of meaningful word concepts into meaningful sentences.

Problems with vision may include lens problems involving focus such as astigmatism, long-sightedness, short sightedness and other lens problems, retinal problems such as inability to read in normal light conditions, colour contrast issues, blind spots, and nerve problems connecting the eye to the brain.

Problems with eye control include the inability of the eye to follow words sequentially in a line of text in the correct direction.

Problems with recognition and conceptualisation of meaningful words include the inability to differentiate between the image of a character and the mirror image of the character (e.g. "b" and "d") or the same character after rotation (e.g. "d" and "p"). They also include transposition of characters in a word, reading the whole or part of a word backwards as is common in dyslexia, and reading words in a different order to the order in which they are written. Another kind of problem is that people may not know what specific words mean.

Special formats are formats specifically designed to help people better discriminate characters they have difficulty in discriminating, and to provide additional information in the form of visual patterns that will assist readers mentally to process the words and characters in the right order.

The formats that are applied to the document may cause it to be changed with respect to character height, character width, font colour, background colour, character density, margins sizes, use of an optically corrected font, use of a shaded font, line length, line spacing, and separators between lines of text. A combination of the above may be used.

There are several different kinds of formats which can be applied. One set of formats aid discrimination between the characters or symbols presented to users. An example is to make the character "b" and the character "d" look so different that the reader can distinguish them. Another example is to format the text in a size, colour and font so that a person with visual impairment can read it.

Another example of a format involves the creation of a pattern in the characters and words to give additional information to the reader so that the reader can better interpret order of the characters and words. An example is to print text with words in alternating colours or "shape" so that words start in a small font and finish in a larger font, or vice versa.

Yet another example of a format is to add colour to words of a particular grammatical type, such as a noun in red and a verb in blue.

Yet another example of a format is to add additional information into the text, such as words in another language or pictograms.

Formats may also affect the spacing between lines. Lines of various thickness and shapes can be inserted between lines of text to help readers order characters

within words, words within lines and lines within paragraphs.

The person may read the formatted document when it is in either hard copy or electronic form. With electronic materials, the format can be dynamic. An example is highlighting of words in a particular order for a particular time so that the reader's eye is taken along the line of the text in the right order, and without the eye jumping to the next line.

An example of an optically corrected font is tall thin characters for a person whose astigmatism elongates horizontally and contracts vertically.

Other formatting rules that may be applied include changes to the alignment of the characters at the bottom of a line to align them with the middle or top of a line.

Referring to Figure 7, an example passage of text is shown.

Referring to figure 8, the text of Figure 8 is shown with increased left and right margins.

Referring to Figures 9, 10 and 11, the text of Figure 7 is shown with three different paragraph shapes. These are achieved by varying line length within the paragraph and justifying the text of the paragraph either to the left or the right.

Referring to Figure 12, the text of Figure 7 is shown with increased line spacing.

Referring to Figure 13 a line of text is shown formatted to give it a shape. The character height diminishes towards the middle of the line of text.

Referring to Figure 14, a line of text is shown formatted to give it a pattern. Alternate characters along the line are formatted in bold type.

Referring to Figure 15, a line of text is shown five times, each formatted to give a pattern. The pattern repeats in groups of two words. Every second word along the line is formatted in the same manner.

Referring to Figure 16, a line of text is shown

formatted to give a pattern. The pattern repeats in groups of three words. Every third word along is formatted in the same manner.

5 Referring to Figure 17, a paragraph of text is shown formatted to give a pattern. The pattern repeats in groups of three lines of text. Every third line is formatted in the same manner.

10 Referring to Figure 18 a line of text is shown formatted to give a pattern. The beginning and end character of each word are formatted differently to the remaining characters of the words.

15 Referring to Figure 19 a line of text is formatted to give a pattern. The pattern repeats in groups of two letters. Alternate letters have different character heights.

Referring to Figure 20, a paragraph of text is shown with lines of constant thickness inserted between each line of text.

20 Referring to Figure 21, the paragraph of text of Figure 20 is shown with lines of tapered thickness with the taper extending in alternating directions for each alternate line of text.

25 Referring to Figure 22, three lines of text are shown each formatted to give a different pattern. Alternating groups of words are underscored with lines of varying thickness.

30 Referring to Figure 23, two lines of text are shown. In each line, identifying marks are associated with the characters "b" and "d" to assist a reader to distinguish between these characters.

Referring to Figure 24, there are two lines, one of words and the other of incrementing numbers situated under the middle of the words. These numbers can assist a reader to keep the words in sequence.

35 Referring to Figure 25, there is a line of words and a line of dots below the line of words. The first word has a single dot below it, the second word has two dots

below it, and the third word, three. This pattern then repeats itself. The dots allow a user to sequence the words in the right order by providing more visual information about the order of the words.

5       Referring to Figure 26, a number 123,456,789 is shown in a format where the each three numbers are separated by commas. The second number is bigger than the first and the third number is bigger than the second. This gives a user visual information about the order in which the  
10       numbers occur and assists readers in keeping the numbers in the right order.

Referring to Figure 27, there are two lines, one of words and one of a pattern of alternating symbols used to distinguish between suits in a pack of cards. The  
15       position of the symbol approximately in the middle of the word sets up a visual pattern that allows users to locate the words in the right order.

Referring to Figure 28, two triangles are situated below the letter "q", pointing left, and the letter "p",  
20       pointing right, providing a reader with more visual information to help distinguish between "p" and "q".

Any reference to prior art contained herein is not to be taken as an admission that the information is common general knowledge, unless otherwise indicated.

25       Finally, it is to be appreciated that various alterations or additions may be made to the parts previously described without departing from the spirit or ambit of the present invention.

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. A system for distributing reading material including:  
storage means for storing reading material in an  
5 electronic form;  
format selection means to allow a user to select a  
format in which the reading material is to be  
produced;  
production means for producing the reading material  
10 in the selected format; and  
delivery means for delivering the produced reading  
material to the user.
2. A system according to claim 1 wherein the reading  
material is delivered via a public network.
- 15 3. A system according to either claim 1 or claim 2  
wherein the selected format is defined by an XML file  
which is used to prepare a style sheet.
4. A method of distributing reading material including  
the steps of:  
20 storing reading material in an electronic form;  
allowing a user to select a format in which the  
reading material is to be produced;  
producing the reading material in the selected  
format; and  
25 delivering the produced reading material to the user.
5. A method according to claim 4 wherein the reading  
material is delivered via a public network.
6. A method according to either claim 4 or claim 5  
wherein the selected format is defined by an XML file  
30 which is used to prepare a style sheet.
7. A system for distributing reading material including:  
storage means for storing reading material in an  
electronic form;  
35 obtaining means for obtaining order information from  
a user that at least identifies the reading material  
that they desire;  
print facility selection means for selecting a



printing facility based on the order information; and delivery means for delivering the desired reading material in an electronic form to the selected printing facility for printing.

5 8. A system according to claim 7 wherein the reading material is delivered via a public network.

9. A system according to either claim 7 or claim 8 wherein the order information further includes details of the location of the user and the print facility selection means selects the printing facility based on the location of the user.

10 10. A system according to any one of claims 7 to 9 wherein the order information further includes the price that the user is willing to pay for the reading material and the print facility selection means selects the printing facility based on the price that the user is willing to pay.

15 11. A system according to any one of claims 7 to 10 wherein the order information further includes the length of time that the user is willing to wait for the reading material and the print facility selection means selects the printing facility based on the length of time that the user is willing to wait.

20 12. A method of distributing reading material including the steps of:  
25 storing reading material in an electronic form;  
obtaining order information from a user that at least identifies the reading material that they desire;  
selecting a printing facility based on the order  
30 information; and  
delivering the desired reading material in an electronic form to the selected printing facility for printing.

35 13. A method according to claim 12 wherein the reading material is delivered via a public network.

14. A method according to either claim 12 or claim 13 wherein the order information further includes

details of the location of the user and the print facility is selected based on the location of the user.

15. A method according to any one of claims 12 to 14  
5 wherein the order information further includes the price that the user is willing to pay for the reading material and the print facility is selected based on the price that the user is willing to pay.
16. A method according to any one of claims 12 to 15  
10 wherein the order information further includes the length of time that the user is willing to wait for the reading material and the print facility is selected based on the length of time that the user is willing to wait.
17. A system for improving reading material including:  
15 applying means for applying a format to the reading material so that it is better comprehended or better remembered when presented to a person.
18. A system according to claim 17 wherein the applying  
20 means applies the format by preparing a style sheet from an XML file, the XML file including information which defines the format.
19. A method of improving reading material including the  
25 steps of applying a format to the reading material so that it is better comprehended or better remembered when presented to a person.
20. A method according to claim 19 where the format  
defines variable paragraph shapes.
21. A method according to claim 19 wherein the format  
30 defines variable paragraph line spacing.
22. A method according to claim 19 wherein the format  
defines underlining.
23. A method according to claim 19 wherein the format  
defines varying page margin sizes.
24. A method according to claim 19 wherein the format  
35 defines a pattern in the characters of the reading material to give additional information to the

reader.

Dated this 13th day of March 2003

POINT BREAK PRESS Pty Ltd

5 By their Patent Attorneys  
GRIFFITH HACK

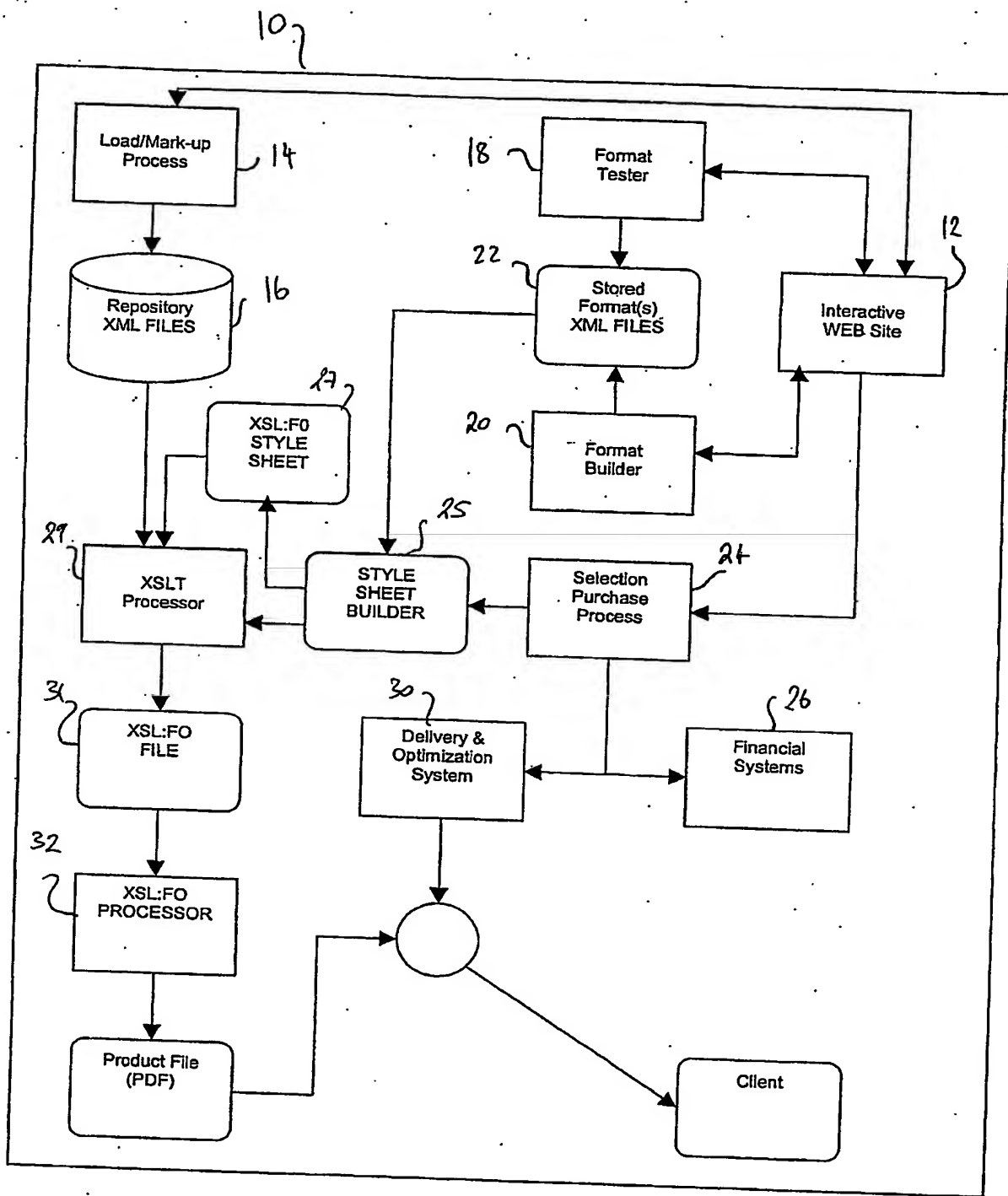


Fig 1

## Example XML Document

```
<pbbook type="novel" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="E:\EX\CVT\pbnovel.xsd">
  <head>
    <title>The Time Machine</title>
    <author>H G Wells</author>
  </head>
  <body>
    <chapter>
      <head>
        <chap_title>I</chap_title>
      </head>
      <body>
        <para number="2">The Time Traveller (for so it will be convenient to speak of him) was
expounding a recondite matter to us. His grey eyes shone and twinkled, and his usually pale face was flushed and
animated. The fire burned brightly, and the soft radiance of the incandescent lights in the lilies of silver caught the
bubbles that flashed and passed in our glasses. Our chairs, being his patents, embraced and caressed us rather
than submitted to be sat upon, and there was that luxuriant after-dinner atmosphere when thought roams
gracefully free of the trammels of precision. And he put it to us in this way—marking the points with a lean
forefinger—as we sat and lazily admired his earnestness over this new paradox (as we thought it) and his
fecundity. </para>
        <para number="3">'You must follow me carefully. I shall have to controvert one or two ideas that
are almost-universally accepted. The geometry, for instance, they taught you at school is founded on a
misconception.' </para>
        <para number="4">'Is not that rather a large thing to expect us to begin upon?' said Filby, an
argumentative person with red hair. </para>
        <para number="5">'I do not mean to ask you to accept anything without reasonable ground for it.
You will soon admit as much as I need from you. You know of course that a mathematical line, a line of thickness
NIL, has no real existence. They taught you that? Neither has a mathematical plane. These things are mere
abstractions.' </para>
        <para number="6">'That is all right,' said the Psychologist. </para>
        <para number="7">'Nor, having only length, breadth, and thickness, can a cube have a real
existence.' </para>
      </body>
    </chapter>
  </body>
</pbbook>
```

Fig 2

```

<?xml version="1.0" encoding="UTF-8"?>
<!-- edited with XMLSPY v5 U (http://www.xmlspy.com) by Eva (Eva) -->
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
  elementFormDefault="qualified" attributeFormDefault="unqualified">
  <xs:element name="format">
    <xs:annotation>
      <xs:documentation>Comment describing your root
element</xs:documentation>
    </xs:annotation>
    <xs:complexType>
      <xs:sequence>
        <xs:element name="book-name"/>
        <xs:element name="page-size"/>
        <xs:element name="margins">
          <xs:complexType>
            <xs:sequence>
              <xs:element name="top"/>
              <xs:element name="bottom"/>
              <xs:element name="left"/>
              <xs:element name="right"/>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
        <xs:element name="font">
          <xs:complexType>
            <xs:sequence>
              <xs:element name="family"/>
              <xs:element name="size"/>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
        <xs:element name="spacing">
          <xs:complexType>
            <xs:sequence>
              <xs:element name="character"
minOccurs="0"/>
              <xs:element name="word"
minOccurs="0"/>
              <xs:element name="leading"/>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
      </xs:sequence>
    </xs:complexType>
  </xs:element>
</xs:schema>

```

Fig 3

## Example Style Sheet – Generated from User Specification

```
<?xml version="1.0" encoding="UTF-8"?>
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform"
xmlns:fo="http://www.w3.org/1999/XSL/Format">
  <xsl:output method="xml"/>
  <xsl:template/>
  <xsl:template match="/">
    <fo:root xmlns:fo="http://www.w3.org/1999/XSL/Format">
      <fo:layout-master-set>
        <fo:simple-page-master master-name="simple"
          page-height="175mm" page-width="105mm" margin-left="10mm"
          margin-right="10mm">
          <fo:region-body margin-top="6mm"
            margin-bottom="12mm"/>
        </fo:simple-page-master>
      </fo:layout-master-set>
      <fo:page-sequence master-reference="simple">
        <fo:flow flow-name="xsl-region-body">
          <xsl:apply-templates/>
        </fo:flow>
      </fo:page-sequence>
    </fo:root>
  </xsl:template>
  <xsl:template match="para">
    <fo:block padding-before="10pt" font-size="8pt"
      font="times-roman" orphans="5">
      <xsl:apply-templates/>
    </fo:block>
  </xsl:template>
  <xsl:template match="chap_title">
    <fo:block text-align="center" font-weight="bold" space-after="6pt"
      font-size="10pt">
      <xsl:apply-templates/>
    </fo:block>
  </xsl:template>
  <xsl:template match="title">
    <fo:block text-align="center" space-after="6pt" font-weight="bold"
      font-size="10pt">
      <xsl:apply-templates/>
    </fo:block>
  </xsl:template>
  <xsl:template match="author">
    <fo:block text-align="center" space-after="6pt" font-weight="bold"
      font-size="10pt">
      <xsl:apply-templates/>
    </fo:block>
  </xsl:template>
  <xsl:template match="chapter">
    <fo:block break-after="page">
      <xsl:apply-templates/>
    </fo:block>
  </xsl:template>
</xsl:stylesheet>
```

Fig 4

## Example XSL:FO Document

```
<?xml version="1.0" encoding="UTF-8"?><fo:root xmlns:fo="http://www.w3.org/1999/XSL/Format"><fo:layout-
master-set><fo:simple-page-master master-name="simple" page-height="175mm" page-width="105mm" margin-
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body"><fo:block text-align="center" space-after="6pt" font-weight="bold" font-size="10pt">The Time
Machine</fo:block><fo:block text-align="center" space-after="6pt" font-weight="bold" font-size="10pt">H G
Wells</fo:block><fo:block break-after="page"><fo:block text-align="center" font-weight="bold" space-after="6pt"
font-size="10pt">I</fo:block><fo:block padding-before="10pt" font-size="8pt" font="times-roman" orphans="5">The
Time Traveller (for so it will be convenient to speak of him) was expounding a recondite matter to us. His grey eyes
shone and twinkled, and his usually pale face was flushed and animated. The fire burned brightly, and the soft
radiance of the incandescent lights in the lilies of silver caught the bubbles that flashed and passed in our glasses.
Our chairs, being his patents, embraced and caressed us rather than submitted to be sat upon, and there was that
luxurious after-dinner atmosphere when thought roams gracefully free of the trammels of precision. And he put it to
us in this way—marking the points with a lean forefinger—as we sat and lazily admired his earnestness over this
new paradox (as we thought it) and his fecundity.</fo:block><fo:block padding-before="10pt" font-size="8pt"
font="times-roman" orphans="5">`You must follow me carefully. I shall have to controvert one or two ideas that are
almost universally accepted. The geometry, for instance, they taught you at school is founded on a
misconception.</fo:block><fo:block padding-before="10pt" font-size="8pt" font="times-roman" orphans="5">`Is not
that rather a large thing to expect us to begin upon?' said Filby, an argumentative person with red
hair.</fo:block><fo:block padding-before="10pt" font-size="8pt" font="times-roman" orphans="5">`I do not mean to
ask you to accept anything without reasonable ground for it. You will soon admit as much as I need from you. You
know of course that a mathematical line, a line of thickness NIL, has no real existence. They taught you that?
Neither has a mathematical plane. These things are mere abstractions.</fo:block><fo:block padding-before="10pt"
font-size="8pt" font="times-roman" orphans="5">`That is all right,' said the Psychologist.</fo:block><fo:block
padding-before="10pt" font-size="8pt" font="times-roman" orphans="5">`Nor, having only length, breadth, and
thickness, can a cube have a real existence.</fo:block></fo:block></fo:flow></fo:page-sequence></fo:root>
```

Fig 5



## Example PDF Output

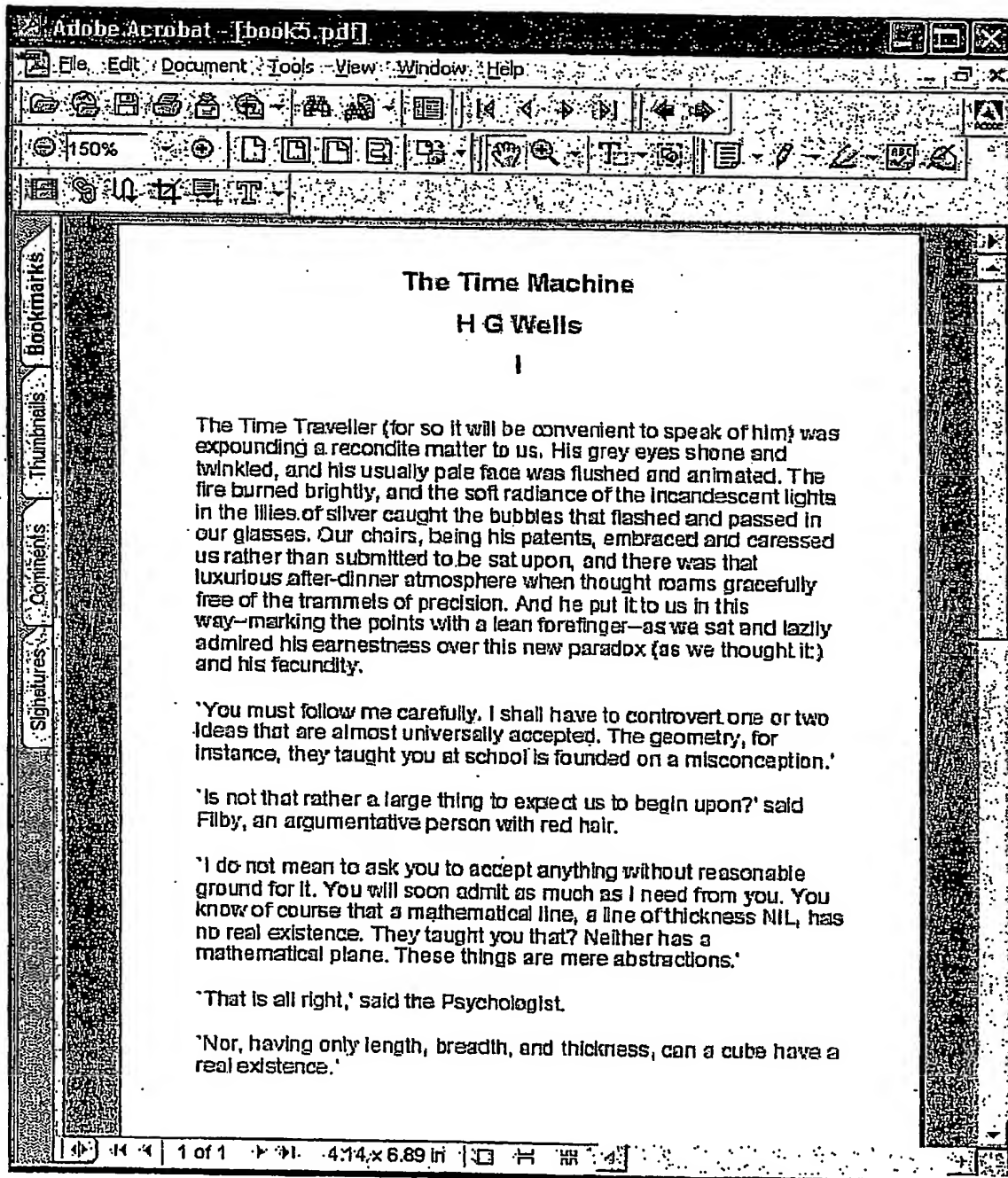


Fig 6

Fig 7

Fig 7

Fig 8

Fig 9

Fig 10

Fig 11



The quick brown foX

Fig 13

The quick brown fox

Fig 14

The QUICK brown FOX jumps OVER the LAZY dog.

The quick brown fox jumps over the lazy dog.

The *quick* brown *fox* jumps *over* the *lazy* dog.

The quick brown fox jumps over the lazy dog.

The quick brown fox jumps over the lazy dog.

Fig 15

The *quick* BROWN fox jumps OVER the lazy DOG.

The quick brown fox jumps over the last dog.

Fig 16

**The quick brown fox jumped over the lazy dog. The quick brown fox jumped over the lazy dog. The quick brown fox jumped over the lazy dog. The quick brown fox jumped over the lazy dog. The quick brown fox jumped over the lazy dog.**

Fig 17

The quick brown fox jumps over the lazy dog.

Fig 18

The quick brown fox jumps over the lazy dog.

Fig 19

Hardy sees parallels with the general theory of relativity, Einstein's theory of gravity. "The mathematical framework of the theory-the geometry of curved space-was actually discovered ahead of time by Bernhard Riemann and others in the mid-19th century," he says. "It's only bad luck that the same thing did not happen for quantum theory."

So what would it have taken for quantum theory to be discovered in the Victorian era? Hardy highlights the crucial difference between classical probability theory and quantum theory. Imagine two boxes and a ball; if the ball is in one box it represents the binary digit "1", in the other box it represents "0". "In classical probability theory these are the only options," says Hardy. "But in quantum theory, the ball can be in both boxes at the same time-there is a continuum of states between 0 and 1."

Fig 20

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Fig 21



The quick brown fox jumps over the lazy dog.

The quick brown fox jumps over the lazy dog.

The quick brown fox jumps over the lazy dog.

Fig 22

The quick brown fox jumps over the lazy dog.

The quick brown fox jumps over the lazy dog.

Fig 23

The quick brown fox jumps over the lazy dog.  
1 2 3 4 5 6 7 8 9

Fig 24

The quick brown fox jumps over the lazy dog.  
• •• • •• •• •• ••

Fig 25

123, 456, 789

Fig 26

The quick brown fox jumps over the lazy dog.  
♠ ♣ ♥ ♦ ♠ ♣ ♥ ♦ ♠

Fig 27

The quick brown fox jumps over the lazy dog.  
◀ ▶

Fig 28

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